

IN THE CLAIMS:

1-15. (cancelled)

16. (currently amended) A magnetic recording medium comprising:

a non-magnetic glass substrate,

a seed layer formed on the non-magnetic glass substrate,

a magnetic layer, and

an underlayer formed between the seed layer and the magnetic layer, wherein:

said seed layer is amorphous or micro crystal, and contains at least Ti and Al,

said magnetic layer contains a Co alloy, has an h.c.p structure and is oriented in (11.0)

direction relative to the plane parallel with the substrate,

said underlayer is oriented in (100) direction relative to the plane parallel with the substrate, and

the seed layer contains at least 35 at% or more and 65 at% or less of Ti, and at least 35 at% or more and 65 at% or less of Al based on the entire composition.

17. (previously presented) A magnetic recording medium according to claim 16, wherein said underlayer contains Cr or Cr alloy.

18. (canceled)

19. (previously presented) A magnetic recording medium according to claim 16, wherein the underlayer comprises a multi-layered structure having at least two layers, the underlayer of the multi-layered structure comprises a first underlayer containing Cr or CrTi and a second underlayer containing at least one element selected from the group consisting of Cr, Nb, Mo, Ta, W and Ti, formed successively from the side nearer to the substrate.

20. (previously presented) A magnetic recording medium according to claim 16, wherein the underlayer comprises one or plurality of underlayers formed on the seed layer, and

said magnetic layer contains CoCr alloy and 0.5 at% or more and 8.0 at% or less of at least one element selected from the group consisting of C, B, Si and Ta.

21. (previously presented) A magnetic recording medium according to claim 20, wherein one or a plurality of intermediate layers containing at least Co and Cr are formed on the one or plurality of underlayers.

22. (previously presented) A magnetic recording medium according to claim 16, wherein said amorphous or micro crystal seed layer is formed by heating the substrate to about 100 °C or higher and 380 °C or lower.

23. (previously presented) A magnetic recording medium according to claim 22, wherein a surface of said amorphous or micro crystal seed layer is oxidized or nitriding.

24. (canceled)

25. (currently amended) A magnetic recording apparatus including:

- a magnetic recording medium,
- a driver for driving the magnetic recording medium in the recording direction,
- a magnetic head having a reproducing section and a recording section containing a magnetoresistive sensor, and

a device for moving the magnetic head relative to the magnetic recording medium and a read/write signal processing unit for conducting waveform processing to input signals and output signals to and from the magnetic head, wherein:

said magnetic recording medium comprising a non-magnetic glass substrate, a seed layer formed on the non-magnetic glass substrate, a magnetic layer, and an underlayer formed between the seed layer and the magnetic layer,

said seed layer is amorphous or micro crystal, contains at least Ti and Al, said magnetic layer contains a Co alloy, has an h.c.p structure and is oriented in (11.0) direction relative to the

plane parallel with the substrate, and said underlayer is oriented in (100) direction relative to the plane parallel with the substrate, and

the seed layer contains at least 35 at% or more and 65 at% or less of Ti, and at least 35 at% or more and 65 at% or less of Al based on the entire composition.

26. (previously presented) A magnetic recording apparatus according to claim 25, wherein the magnetoresistive sensor is a spin valve type magnetoresistive sensor.


27. (previously presented) A magnetic recording apparatus according to claim 26, wherein the magnetoresistive sensor is a tunnel effect type magnetoresistive sensor.

Should there be any questions concerning this matter, please contact the undersigned.

The Office is authorized to charge any additional fees under 37 C.F.R. § 1.16 or § 1.17 or credit of any overpayment to Kenyon & Kenyon Deposit Account No.

11-0600.

Respectfully submitted,


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